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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,006	07/25/2003	W. Brett Wilson	2000.005	3714

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EXAMINER

BEACH, THOMAS A

ART UNIT PAPER NUMBER

3671

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/627,006	<b>Applicant(s)</b> WILSON, W. BRETT	
	<b>Examiner</b> Thomas A. Beach	<b>Art Unit</b> 3671	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on reconsideration filed 01/27/06.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-19 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. Claims 1-3, 5-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shotbolt 4,793,737 in view of Thiebaud et al 6,082,391. Shotbolt shows a fluid transfer system for use in offshore hydrocarbon producing operations (fig. 4), having a riser tower (lower 27 just below 3) extending upwardly from the sea floor to a location substantially below the wave zone of the body of water; a variable buoyancy device 3 (see claim 6 of Shotbolt), to which the upper end of said riser tower is attached, capable of maintaining the riser tower in a substantially vertical orientation (section just below 3); one or more catenary risers 18 (fig. 2; col. 3, lines 54-60) extending upwardly from the sea floor and attached at their upper ends to said variable buoyancy device; and one or more flexible pipe jumpers 10 extending from said variable buoyancy device to a surface production facility so as to allow fluid communication between said steel catenary risers 18 terminating at said variable buoyancy device and the surface production facility. Shotbolt does not disclose the riser 27 to be a hybrid riser tower; however, Thiebaud shows a similar fluid transfer system for use in offshore hydrocarbon producing operations having a hybrid riser tower (multiple hybrid riser towers, figures 6-7; claim 8) that include one or more risers (fig. 7), one or more umbilicals (24), a carrier pipe structural member (23) and injection risers (col. 3-4, lines 65-67 & 1-6; claims 5-7) with similar catenary risers 8 (fig 7, col. 3, lines 53-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify Shotbolt, as taught by Thiebaud, to include a hybrid riser tower to control displacement of the risers due to hydrodynamic action from the current to prevent excessive wear and damage to the risers.

As concerns claim 2, the combination shows the surface production facility comprises a floating production facility (Shotbolt 2).

As concerns claim 3, the combination shows mid-depth transfer lines 44 extending from said variable buoyancy device to another surface production facility (Shotbolt, fig. 3 & col. 4, lines 7-14).

As concerns claim 9, the combination shows the variable buoyancy device has means for varying the buoyancy of said variable buoyancy device (see claim 6 of Shotbolt).

As concerns claim 11, the combination shows steel catenary risers extend from said variable buoyancy device to remote production and processing facilities.

As concerns claim 12, the combination shows the hydrocarbon fluids from one or more subsea wells (Shotbolt , 1) are transported from the sea floor to said floating production vessel through at least one hybrid riser tower and at least one flexible pipe jumper.

As concerns claim 13, the combination shows the hydrocarbon fluids are exported from said surface production facility through at least one flexible pipe jumper and at least one steel catenary riser (Shotbolt, 27, disclosed as an export riser, thus as combined the hybrid tower also is capable of exporting fluid).

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shotbolt 4,793,737 and Thiebaud et al 6,082,391 in view of de Baan et al 5,275,510. The combination does not show a mid-depth transfer lines extending from said variable buoyancy device to an offloading buoy; however, de Baan shows a similar fluid transfer system for use in offshore hydrocarbon producing operations having show a mid-depth transfer lines 28, 30 extending from said variable buoyancy device 42 to an offloading buoy. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination, as taught by de Baan, to include to an offloading buoy since Shotbolt discloses the use of and shows that the use of an offloading is well know in the art and thus provides means for ships to load production fluid in multiple locations without the expense of maintaining a facility at each location.

#### ***Allowable Subject Matter***

3. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 14-19 are allowed.

#### ***Response to Arguments***

5. Applicant's arguments filed 01/27/06 have been fully considered but they are not persuasive. As noted above in the rejection, Shotbolt, the primary reference, discloses

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the use of steel catenary risers, as noted in the rejection above, where the motivation to combine the system with a hybrid tower is taught by Thiebaud

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Beach whose telephone number is 571.272.6988. The examiner can normally be reached on Monday-Friday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached on 571.272.6998. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas A. Beach

April 15, 2006

**THOMAS A. BEACH**  
Primary Examiner  
Group 3600